

Work Order ID 106631

September-11-13 11:10:27 AM

106631

Page 1

Item ID: 646.3913

Accept

Revision ID:

Item Name: Shim

Start Date: 9/23/13 Start Qty: 4.00

4
4 12*

N900040100

Setup

Start

NS1

Stop

NS2

Required Date: 9/23/13 Req'd Qty: 4.00

Cust Item ID:
Customer:

Reference:

Approvals: Process Plan: MLJ

Date: 13-09-13 Tooling:

Date:

Run

Start

NR1

QC:

Date: SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
646.3900	N/C								

110

110

Waterjet

FLOW CNC Waterjet

Memo

1-Cut as per Dwg
Dwg Rev: N/C
Prog Rev: N/C

0.00

12 0 A
13.11.02

2-Deburr if necessary

120

QC2- Inspect parts off machine FAI/FAIB

0.00

120

QC

Quality Control

Memo

0.00

12 0 A
13.11.02

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: Date: ✓

QA Closed: Date:

Work Order: _____				DISPOSITION		AGAINST DEPARTMENT/PROCESS					
				Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>			
				Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>			
				Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>			
				Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>				
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear				General							
<input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				<input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio							
				<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions							
				<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge							
				<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled							
				<input type="checkbox"/> Other							

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Page 2

Item ID: 646.3913

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Shim

Stop

NS2

Start Date: 9/23/13

Start Qty: 4.00

4

Cust Item ID:

Required Date: 9/23/13

Req'd Qty: 4.00

4

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

DAS

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130

QC8- Inspect parts - second check

0.00

27

9.80

130

QC

Quality Control

B1104

12

140

Outsource process-Cadplate per QSI017 4.1.9.1

0.00

140

Outsource3

Outsource process - Cad plate

Memo

Issue P/O: 21961

0.00

CY 13/11/06 (12)

150

Receive & Inspect for Damage & Mat'l Certs

0.00

150

Packaging

Packaging

Memo

0.00

R 13/11/04 (12)

NCR: Yes / No

DQA: Date: ✓

WORK ORDER NON-COMPLIANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____				DISPOSITION		AGAINST DEPARTMENT/PROCESS											
				Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>		Engineering <input type="checkbox"/>								
				Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>		Quality <input type="checkbox"/>								
				Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>		Other <input type="checkbox"/>								
				Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>										
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description		Sign & Date	Verification	QC Inspector						
Doc/Data																	
Equip/Tooling																	
Operator																	
Material																	
Setup																	
Other																	
Process																	
Supplier																	
Training																	
Unapproved																	
FAULT CATEGORY																	
Landing Gear				General													
<input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				<input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions								<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Other				<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled	

Work Order ID 106631

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Page 3

Item ID: 646.3913

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Shim

Stop

NS2

Start Date: 9/23/13 **Start Qty:** 4.00

4

Cust Item ID:

Required Date: 9/23/13 **Req'd Qty:** 4.00

4

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

**Sequence ID/
Work Center ID**

**Operation
Description**

**Set Up/
Run Hours**

Tool ID

Tool #

**Plan
Code**

**Accept
Qty**

**Reject
Qty**

**Reject
Number**

**Insp.
Stamp**

160

QC5- Inspect part completeness to step on W/O

0.00

DAS

27

9-89

160

QC

Quality Control

12/12/04

170

Identify as per dwg & Stock Location: ST535

0.00

170

Packaging

Packaging

Memo

0.00

IDENTIFY AS PER APICAL MPP-120 BY STAMPING THE P# AND REV

12X

DAS

28

9-89

13-12-4

180

QC21- Final Inspection - Work Order Release

0.00

180

QC

Quality Control

Memo

0.00

13/12/9 JJ

11/12/5

NCR: Yes / No

WORK ORDER NON-COMPLIANCE / UPDATE

DQA: _____ Date: _____

QA Closed: Date:

Work Order: _____				DISPOSITION		AGAINST DEPARTMENT/PROCESS										
				Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>								
Part No. _____		NCR No. _____														
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector							
Doc/Data																
Equip/Tooling																
Operator																
Material																
Setup																
Other																
Process																
Supplier																
Training																
Unapproved																
FAULT CATEGORY																
Landing Gear				General												
Bending	<input type="checkbox"/>			Bend	<input type="checkbox"/>			Grain	<input type="checkbox"/>			Ovalized	<input type="checkbox"/>			Pressure/Forced
Centre Not Concentric to O/S	<input type="checkbox"/>			BOM/Route	<input type="checkbox"/>			Hardware	<input type="checkbox"/>			Over/Under tolerance	<input type="checkbox"/>			Temperature/Cure
Cracks	<input type="checkbox"/>			Broken/Damaged	<input type="checkbox"/>			Inspection Incomplete	<input type="checkbox"/>			Part Incorrect	<input type="checkbox"/>			Weld
Crushed/Crimped	<input type="checkbox"/>			Burrs	<input type="checkbox"/>			Instructions Incomplete/Unclear	<input type="checkbox"/>			Part Lost/Missing	<input type="checkbox"/>			Wrong Stock Pulled
Cuffs	<input type="checkbox"/>			Contamination	<input type="checkbox"/>			Maintenance	<input type="checkbox"/>			Part Moved	<input type="checkbox"/>			
Heat Treat	<input type="checkbox"/>			Countersink	<input type="checkbox"/>			Mislabeled	<input type="checkbox"/>			Positioned Wrong	<input type="checkbox"/>			
Inspection Strip in Tube	<input type="checkbox"/>			Cut Too Short	<input type="checkbox"/>			Misread	<input type="checkbox"/>			Power Loss/Surge	<input type="checkbox"/>			
Ripples in Bend	<input type="checkbox"/>			Drill Holes	<input type="checkbox"/>			Offset	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>			Other
Torque Waves in Extrusion	<input type="checkbox"/>			Drawing	<input type="checkbox"/>			Out of Calibration	<input type="checkbox"/>				<input type="checkbox"/>			
Turning Sequence	<input type="checkbox"/>			Finish	<input type="checkbox"/>			Out of Sequence	<input type="checkbox"/>				<input type="checkbox"/>			
Wave/Twist in Tube	<input type="checkbox"/>			Folio	<input type="checkbox"/>			Outside Dimensions	<input type="checkbox"/>				<input type="checkbox"/>			

Picklist Print

September-11-13 11:10:26 AM

Page 1

Work Order ID: 106631

Parent Item: 646.3913

Parent Item Name: Shim

Start Date: 9/23/13

Required Date: 9/23/13

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP REV:A 12.10.23 NEW ISSUE DD VERF:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MC1095S.032 C1095 Blue Tempered Spring Steel Sheet .032		Purchased	No			110	sf	8.5000	0.02	0.0842104		Ac 13.11.02	

Location	Loc Qty	Loc Code
MAT022	8.5	
123537	8.5	

123537 → .24

NCR: Yes / No

DQA: Date:

WORK ORDER NON-COMPLIANCE / UPDATE

QA Closed: _____ **Date:** _____

Work Order: _____				DISPOSITION		AGAINST DEPARTMENT/PROCESS							
				Rework Scrap Use-as-is Work Order Update	Skid-tube Machining Thermoforming Large Fab	Crosstube Small Fab Finishing Composite	Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier	Engineering Quality Other					
Part No. _____													
NCR No. _____													
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector				
Doc/Data													
Equip/Tooling													
Operator													
Material													
Setup													
Other													
Process													
Supplier													
Training													
Unapproved													
FAULT CATEGORY													
Landing Gear				General									
<input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				<input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions						<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Other		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled	

DART AEROSPACE LTD	Work Order:	10663
Description: Shim	Part Number:	646.3913
Inspection Dwg: 646.3900 Rev: N/C		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Measured by:	<i>Ak</i>	Audited by:	<i>88827 DAS</i>	Preliminary Approval:	
Date:	<i>13.11.02</i>	Date:	<i>B 1104</i>	Date:	

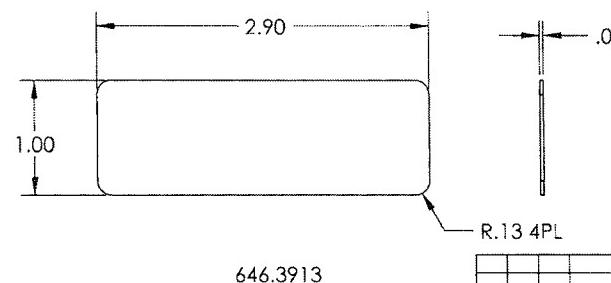
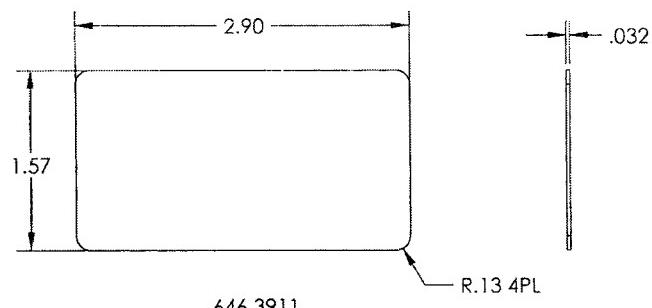
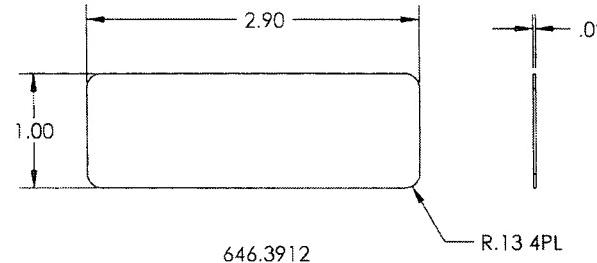
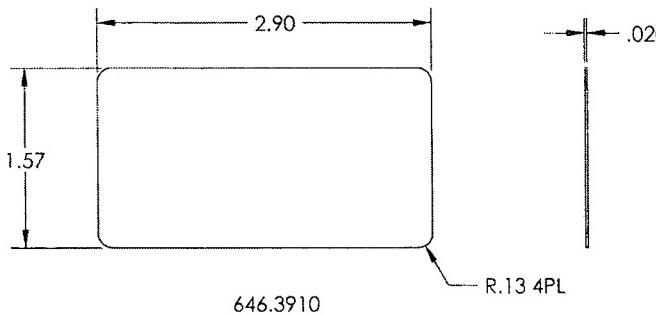
Rev	Date	Change	Revised by	Approved
A	12.11.30	New Issue	KJ	AA

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REVISION		DESCRIPTION	DATE	APPROVED

NOTES:

- 1** MATERIAL: SHIM STOCK, C1095 BLUE-TEMPERED SPRING STEEL
2 FINISH: CAD PLATE PER QQ-P-416 TYP II CL2
3. IDENTIFY IAW MPP-120



			646.3913	SHIM	△	△
			646.3912	SHIM	△	△
			646.3911	SHIM	△	△
			646.3910	SHIM	△	△
FIND #		PART #	DESCRIPTION		MATL	SPEC.
QTY			PARTS LIST			
NEXT ASSY (S)		646.4000	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300  <u>SHIM</u>			
			<u>UPPER CHAMFER SPACED 70% WIDE OF 1/8 INCHES</u> <u>TOLERANCES: ±1/16</u> <u>SWAGE OVERWALL: ±1/16</u> <u>SWAGE OVERWALL: ±1/16</u>			
			3	07/16	646.3900	N/C
			SCALE NAME		SWELL	(O)

106631 MCJ
13-09-13

**CERTIFICATE OF
CONFORMANCE**

**CADORATH PLATING CO. LTD.
2150 LOGAN AVENUE
WINNIPEG, MANITOBA R2J-0J1**

DATE: Dec-02-2013

CONSIGNMENT TO: Dart Aerospace Ltd.

1270 Aberdeen St.
Hawksbury, ON K6A 1K7

W/O #: 130255
INVOICE #: 68742

**CONTRACT OR
PURCHASE ORDER #** PO21961

DESCRIPTION: SHIM **QTY** 12

P/N # 646.3913 **S/N #** 106631

CADMUM PLATING IAW AMS-QQ-P-416C TYPE 2 YELLOW CLASS 2.
BAKE HEAT CHART # 13-1051.

CERTIFICATE: I certify that the items indicated hereon have been inspected and tested and conform to all specifications and requirements detailed on the contract or purchase order.

C1
22

Approved Inspector: